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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,412	10/25/2001	Matthew A. Bellew	109870-130117	7051

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EXAMINER
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FERNANDES, CHERYL M

ART UNIT	PAPER NUMBER
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2163

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/038,412	BELLEW, MATTHEW A.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Cheryl M Fernandes	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. This communication is responsive to the Amendment filed 23 August 2004.  
Claims 1-38 are presented for examination. Claims 9-11 and 28-30 have been amended.

***Oath/Declaration***

2. Objection withdrawn due to the amendment.

***Drawings***

3. Objections withdrawn due to the amendment.

***Specification***

4. Objections withdrawn due to the amendment.

***Claim Objections***

5. Objections withdrawn due to the amendment.

***Claim Rejections - 35 USC § 112***

6. Rejections withdrawn due to the amendment.

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 9-14, 19, 28-33, and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by US Publication Number 2002/0013779 A1 by Sridhar.

Referring to claims 9 and 28, Sridhar discloses a method (see Abstract) and apparatus (see para. 37-38) respectively, comprising:

storage medium having stored therein a plurality of programming instructions ('computer implemented logic', para. 38), when executed, operate the apparatus to:

- present a first plurality of fields of a first table for selection for use in a data processing operation (see Summary, para. 5; 'supplier table' attributes (Fig. 1, element 104), para. 33; 'patient table' and 'physician table' (Fig. 9, elements 902 and 904), para. 63,101 (Fig. 16A));
- receive a selection of a first field that is a member of said first fields ('price' attribute of supplier table, paragraphs 33-34; para. 66, 85, 102 (Fig. 16B));
- determine whether said selected first field is a first designated look-up field (see Abstract) for looking up first one or more of a second plurality of fields of a second table ('part table' (Fig. 1, element 106), para. 33-34; para. 64-65, 79-81, 103);
- present said second plurality of fields for selection for use in said data processing operation (para. 35, Fig. 2), if it is determined that that said selected first field is a first designated look-up field for looking up first one or more of said second plurality of fields of said second table (see Summary, para. 9; para. 86-88, 96-98, 100, 104 (Fig. 16C and D)).

and at least one processor coupled to the storage medium to execute the programming instructions ('Internet-enabled handheld computers', para.38).

Referring to claims 10 and 29, Sridhar discloses that the second plurality of fields is presented in a multi-part form (Fig. 4, Fig. 9), including a first part, said first look-up field ('SupplierParts' (Fig. 4); 'secondary.patient\_id' attribute of secondary table (Fig. 9, element 910) ), and a second part, a corresponding one of the second one or more fields to be looked up ('supplier' (Fig. 4); 'patient\_id' attribute of patient table (Fig. 9, element 902)), concatenated with said first part in a predetermined manner (Fig. 4; para. 66 (Fig. 9)).

Referring to claims 13 and 32, Sridhar discloses that the second part, a corresponding one of said first one or more fields to be looked up, is concatenated with said first part, said first look-up field, employing one or more predetermined special characters (Refer to discussion above addressing claims 10 and 29 with regard to the predetermined use of characters such as the "." and "=" characters; also see para. 85 with regard to formatting structure).

Referring to claims 14 and 33, Sridhar discloses that the said one or more predetermined special characters comprises at least a selected one of ".", ":", ".about.", "!", "@", "#", "\$", "%", "[circumflex over ( )]", "&", "\*", "-", "+", "=", "?", "&lt;", and "&gt;" (Refer to discussion above for claims 13 and 32 with regard to the use of "." and "," as concatenating characters).

Referring to claims 11 and 30, Sridhar discloses:

receiving a selection of a second field that is a member of said second fields,  
determining whether said selected second field is a second designated look-up field for  
looking up first one or more of a third plurality of fields of a third table, and presenting  
said third plurality of fields for selection if it is determined that said selected second field  
is a second designated look-up field for looking up second one or more of said third  
plurality of fields of said third table.

Refer to the last 3 limitations of claims 9 and 28 addressed above with regard to  
the above mentioned limitations of claims 11 and 30 (see para. 33 and 36-37 for  
reference to a third table).

Referring to claims 12 and 31, Sridhar discloses:

- each of said second plurality of fields is presented in a multi-part form,  
including a first part, said first look-up field, and a second part, a  
corresponding one of said first one or more fields to be looked up,  
concatenated with said first part in a predetermined manner (Refer to  
discussion of claim 10 above); and
- each of said third plurality of fields is presented in a multi-part form, including  
said first and second parts, and a third part, a corresponding one of said  
second one or more fields to be looked up, concatenated with said second  
part in a predetermined manner (see Fig. 4 for presentation in multi-part form

of first ('supplierParts'), second ('supplier'), and third parts ('parts.Name' and 'parts.Weight') of tables concatenated by periods).

Referring to claims 19 and 38, Sridhar teaches the apparatus and method above, wherein the method further comprises:

specifying said first plurality of fields of said first table (Fig. 10 and 13);  
designating one or more of said specified first fields as look-up fields (see Abstract; para. 29); and  
specifying target tables(parts table, Fig. 4) for said designated look-up fields (refer to parts table with Name and Weight fields in Fig. 4).

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1-8 and 20-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sridhar, and further in view of US Patent Number 5,619,688 issued to Bosworth et al (hereafter Bosworth).

Claims 15-17 and 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sridhar as applied to claims 9 and 28 above, and further in view of Bosworth.

Referring to claims 1 and 20, Sridhar discloses an apparatus comprising:

Art Unit: 2163

storage medium having stored therein programming instructions, when executed, operate the apparatus to:

- parse a data processing statement (para. 29, Fig. 3-4, 14);
- identify table field or fields referenced in said data processing statement (Fig. 10 and 13);
- determine, for each identified table field, whether the table field is a looked-up field (see Abstract; para. 29);
- identify a basis table (supplier table, Fig 4) of which non-looked up ones of said identified table field or fields are members (refer to supplier table with ID field in Fig. 4); and
- identify one or more target tables (parts table, Fig. 4) from which said looked-up one or ones of said identified table field or fields are to be looked up (refer to parts table with Name and Weight fields in Fig. 4);
- generating a SQL statement (para. 62); and
- if the data processing statement was determined to contain one or more fields to be looked up from one or more target tables, further including among said field or fields to be selected :

said one or more fields to be looked up ('Part\_id', Fig. 3 and 4) from said one or more target tables, and

one or more JOIN clauses respectively joining said basis table and said one or more target tables (see Para. 46-47 related to Fig. 3 and 4); and



one or more processors coupled to the storage medium to execute the programming instructions ('Internet-enabled handheld computers', para.38).

Referring to claims 2 and 21, Sridhar discloses that the second plurality of fields is presented in a multi-part form (Fig. 4, Fig. 9), including a first part, said first look-up field ('SupplierParts' (Fig. 4); 'secondary.patient\_id' attribute of secondary table (Fig. 9, element 910) ), and a second part, a corresponding one of the second one or more fields to be looked up ('supplier' (Fig. 4); 'patient\_id' attribute of patient table (Fig. 9, element 902)), concatenated with said first part in a predetermined manner (Fig. 4; para. 66 (Fig. 9)).

Referring to claims 3 and 22, Sridhar discloses: each of said second plurality of fields is presented in a multi-part form, including a first part, said first look-up field, and a second part, a corresponding one of said first one or more fields to be looked up, concatenated with said first part in a predetermined manner (Refer to discussion of claim 10 above); and each of said third plurality of fields is presented in a multi-part form, including said first and second parts, and a third part, a corresponding one of said second one or more fields to be looked up, concatenated with said second part in a predetermined manner (see Fig. 4 for presentation in multi-part form of first ('supplierParts'), second ('supplier'), and third parts ('parts.Name' and 'parts.Weight') of tables concatenated by periods).

Referring to claims 4 and 23, Sridhar discloses that the second part, a corresponding one of said first one or more fields to be looked up, is concatenated with said first part, said first look-up field, employing one or more predetermined special characters (Refer to discussion above addressing claims 10 and 29 with regard to the predetermined use of characters such as the "." and "=" characters; also see para. 85 with regard to formatting structure).

Referring to claims 5 and 24, Sridhar discloses that the said one or more predetermined special characters comprises at least a selected one of ".", ":", ".about.", "!", "@", "#", "\$", "%", "[circumflex over ( )]", "&", "\*", "-", "+", "=", "?", "&lt;", and "&gt;" (Refer to discussion above for claims 13 and 32 with regard to the use of "." and "," as concatenating characters).

Referring to claims 1, 15, 20, and 34, Sridhar fails to disclose:

including with said generated SQL statement:

field or fields to be selected from said basis table and  
a FROM clause enumerating said basis table, and  
one or more corresponding ON clauses respectively specifying one  
or more corresponding conditions on which rows of said basis and  
said one or more target tables are to be joined, each of said one or  
more conditions comprising a corresponding look-up field;

However, referring to claims 1, 15, 20, and 34, Bosworth shows:

including with said generated SQL statement('query table', see  
Background, col. 1, line 36- col.2, line 54 for following limitations as well):

field or fields to be selected ('Employees.Name',  
'Employees.Manager', Fig. 1A,B, col. 2, line 1 of query) from said  
basis table (Employees, Managers tables) and a FROM clause  
enumerating said basis table (col. 2, line 3 of query), and one or  
more corresponding ON clauses (col.2, line 4 of query) respectively  
specifying one or more corresponding conditions on which rows of  
said basis and said one or more target tables are to be joined  
(see 'WHERE' clause for condition, col.2, line 5 of query), each of  
said one or more conditions comprising a corresponding look-up  
field (Compensation Type= "salary", col. 2, line 5 of query);

Referring to claims 6, 16, 25, and 35, Bosworth teaches the method and  
apparatus above, wherein said JOIN clause is an OUTER JOIN clause (col. 10, lines  
33-60; Fig. 12 and 37-38) .

Referring to claims 7, 17, 26, and 36, Bosworth teaches the method and  
apparatus above, wherein said JOIN clause is an INNER JOIN clause (col. 2, line 3 of  
query).

Referring to claims 8, 18, 27, and 37, Bosworth teaches the apparatus and method above, wherein said SQL statement is a selected one of a SELECT (col. 2, line 1 of query; col. 8, line 48- col. 9, line 3), an INSERT, an UPDATE and a DELETE statement.

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Sridhar to include generating an SQL statement to include a FROM clause to enumerate a basis table and an ON clause that links the basis and target tables as taught by Bosworth.

The ordinary skilled artisan would be motivated to modify Sridhar to include a FROM clause for the purpose of selecting the salaried employees from the Employees table and then using the Managers table to determine each employee's Department Number based on the name of the employee's manager (see col. 2, lines 6-10). In addition, the ordinary skilled artisan would also be motivated to modify Sridhar to include an ON clause for the purpose of joining a row of the Employees table to a row of the Managers table if the Manager field of the Employees table equals the Manager field of the Managers table (see col. 2, lines 25-32). Furthermore, Bosworth teaches a database engine with the capability to retrieve data from the tables of a database management system wherein the engine typically receives instructions, called queries, to retrieve data stored in tables. Bosworth also teaches that said queries are usually expressed in SQL wherein a query specifies the data to be retrieved and the manipulations to be made to retrieved data.

Although not relied upon in the rejection, examiner respectfully notes several references listed below wherein the references show that the ability to retrieve and manipulate data is the primary advantage of SQL queries. Therefore examiner respectfully asserts that Bosworth provides motivation for using SQL queries.

### ***Response to Arguments***

Applicant's arguments filed 23 August 2004, with respect to claims 1-38, have been fully considered but they are not persuasive.

9. Referring to claims 9 and 28, Applicant argues that Sridhar does not teach presenting a first table and then determining if a particularly selected field is a designated look-up field for other fields in a separate table. However, the Examiner respectfully disagrees.

Examiner respectfully asserts that the 'List Category' table presented in Fig. 16A with the fields 'Consumable goods', 'Durable goods', and 'Software' (under the column Name) and the hyperlink fields "2", "2", and "1" (under the column Supplier Category ID Count) which are presented for selection are the first plurality of fields of a first table presented for selection in a data processing operation.

Examiner respectfully asserts that selecting the hyperlink field "2" corresponding to Consumable goods in the 'List Category' table incorporates receiving a selection of a first field that is a member of said first fields.

Examiner respectfully asserts that the value "2" of the hyperlink corresponding to Consumable goods in the 'List Category' table in Fig. 16A, which is a hyperlink that is

Art Unit: 2163

generated based upon the determination of a foreign key (see para. 101-103), indicates that the hyperlink is a determined look up field for looking up the list of suppliers supplying Consumable goods as shown in Fig. 16B, and thereby incorporates determining whether the selected field is a first designated look-up field for looking up first one or more of a second plurality of fields of a second table.

Examiner respectfully asserts that selecting the hyperlinked field value "2" will cause a list of two suppliers "Acme Technologies" and "Universal Paper Clips" to be looked up and displayed in Supplier List table in Fig. 16B, thereby presenting the second plurality of fields for selection in a data processing operation, if it is determined that the selected field is a first designated look-up field for looking up first one or more of the second plurality of fields of the second table.

10. Referring to claims 1 and 20, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *using* a parsed data processing statement to identify table fields) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). On the contrary, the claims recite identifying a table field or fields referenced in a data processing statement.

Referring to claims 1 and 20, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., determining whether each table field is identified from the parsed data processing statement is a look up *table*) are not recited in the rejected claim(s). On the contrary, the claims recite determining whether the table field identified from the parsed data processing statement is a looked-up field. The features mentioned are not reflected in the claim language and are not supported by the specification.

Referring to claims 1 and 20, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., determining whether a specified table field is a designated look-up field that references another set of fields in a second table) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). On the contrary, the claims recite identifying a basis and a target table.

Referring to claims 1 and 20, Applicant argues that Sridhar does not teach generation of a SQL statement with JOIN clauses. However, the Examiner respectfully disagrees. Sridhar teaches that the "join terms" in the SQL to be generated refer to the step of joining the "part" and "supplier" tables (para. 46; Fig. 3). Sridhar also discloses

Art Unit: 2163

that the system determines the identity of the linking table and the join terms in the SQL to be generated (para. 46). In addition, Sridhar specifically discloses the generation of SQL statements based upon the identity of the tables selected as well as the links associated with these tables (para. 62). Examiner respectfully asserts that the SQL that is generated contains "join terms" of the part and supplier tables and therefore reads on one or more JOIN clauses respectively joining the basis table and target table.

11. Referring to claims 1, 15, 20, and 34, Applicant argues that Bosworth does not teach the subject matter of the acknowledged deficiencies in Sridhar. However, the Examiner respectfully disagrees. Bosworth teaches generating or constructing a SQL query (col. 1, line 36- col. 2, line 54) including "Employees.Name" and "Employees.Manager" fields to be selected from the "Employees" and "Managers" basis tables, and a FROM clause enumerating the Employees and Managers basis tables, and a corresponding ON clause (col. 2, line 21) specifying corresponding "Employees.Manager = Managers.Manager" conditions (col. 2, line 21) on which the rows of the Employees and Managers tables are to be joined, each of said conditions comprising a corresponding "Manager" look-up field.



***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl M Fernandes whose telephone number is (571) 272-4018. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2163

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CMF  
December 2, 2004

  
**UYEN LE**  
**PRIMARY EXAMINER**